

# Kansas Behavioral Health Risk Bulletin



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## Nutrition in Kansas

Proper nutrition is important for maintaining good health and well-being. Dietary factors play an important role in the development of many diseases including at least 5 of the 10 leading causes of death (coronary heart disease, some types of cancer, stroke, noninsulin-dependent diabetes mellitus, and atherosclerosis)<sup>1</sup>. Dietary behaviors which contribute to disease include excessive dietary fat intake and inadequate consumption of fruits, vegetables, and grains.

Diets high in fat are associated with increased risk for obesity, some types of cancer, and possibly gallbladder disease<sup>1</sup>. Diets high in saturated fat also increase cholesterol, which in turn increases the risk of coronary heart disease and atherosclerosis. Dietary fat contributes more than twice as many calories by weight as protein or carbohydrate, and persons with diets high in fat are more likely to be overweight.

Vegetables, fruits, and grains are high in complex carbohydrates, fiber, minerals and vitamins, and are generally low in fat content. Populations consuming diets rich in these foods have substantially lower rates of cancer of the colon, breast, lung, mouth, larynx, esophagus, stomach, bladder, uterine cervix, and pancreas<sup>2</sup>.

The United States Department of Agriculture's *Dietary Guidelines for Americans* recommends that to maintain good health a person should: 1) eat a variety of foods; 2) maintain a healthy weight; 3) consume a diet with 30% or less of total calories from fat and 10% or less from saturated fat; 4) choose a diet low in cholesterol; 5) choose a diet with plenty of fruits and vegetables (at least 5

servings daily), and grain products; 6) use sugar, salt, and sodium only in moderation; and 7) if you drink alcoholic beverages to drink in moderation<sup>3</sup>.

In 1993, the Kansas Department of Health and Environment (KDHE), Bureau of Chronic Disease and Health Promotion (BCDHP), conducted the Behavioral Risk Factor Surveillance System (BRFSS) survey to assess the prevalence of health behaviors among adult Kansans (aged 18 and older) through a random digit-dialed telephone interview. Respondents were asked six questions relating to fruit and vegetable consumption. Also during 1993, the KDHE-BCDHP, conducted a special Nutrition Assessment survey. This survey measured self-reported dietary consumption by survey respondents using a 24 hour dietary recall.

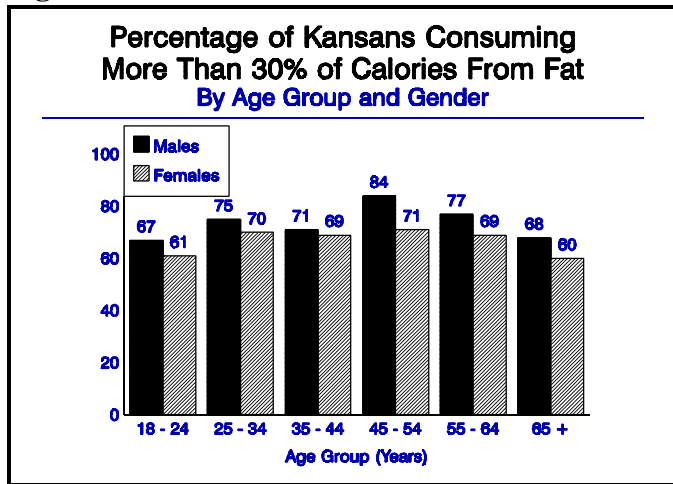
This bulletin will examine dietary fat and fruit and vegetable consumption in Kansas, interventions which may help improve dietary practices, and the Healthy Kansans 2000 objectives relating to nutrition.

### Dietary Fat Consumption

**Overall:** According to the 1993 Kansas Nutritional Assessment Survey, 70% of adult Kansans consume more than 30% of their calories from fat.

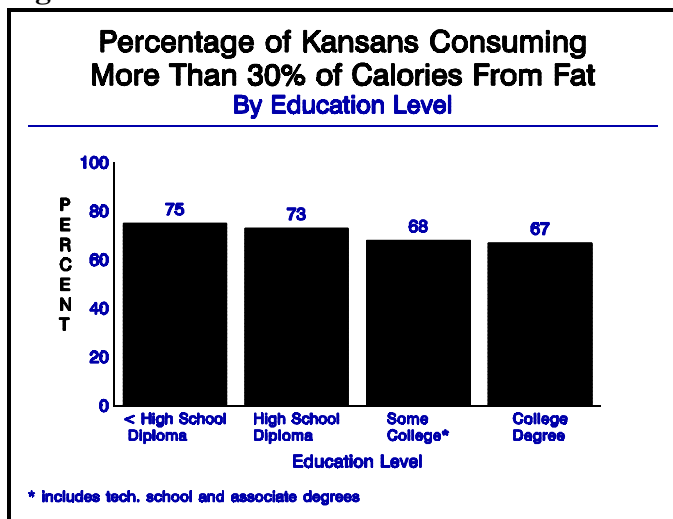
**Age Group and Gender (Fig. 1):** Women (67%) are less likely than men (73%) to consume more than 30% of their calories from fat. The

**Figure 1**



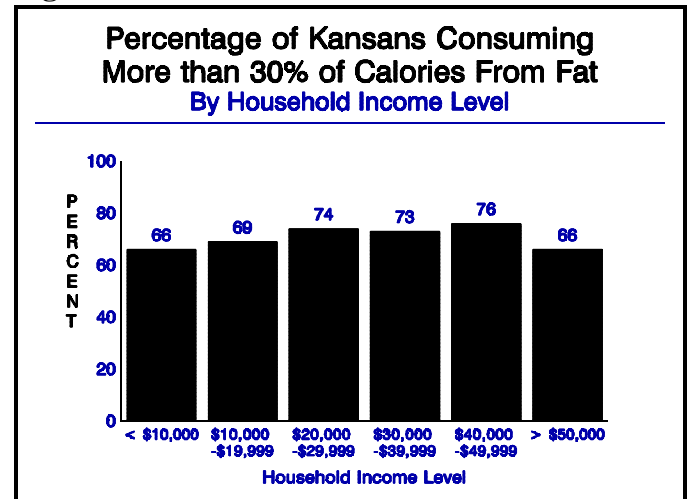
percentage of Kansans who eat more than 30% of their calories from fat increases with age until age 55 at which point the percentage decreases once again. Kansans aged 65 and older have the lowest prevalence of consuming more than 30% of their calories from fat (63%). Kansans aged 45 to 54 have the highest prevalence of eating more than 30% of their calories in fat (77%).

**Figure 2**



Education (Fig. 2): The prevalence of consuming greater than 30% of total calories in fat decreases with increasing education. Kansans with less than a high school diploma are most likely to eat more than 30% their calories as fat (75%). Kansans with a college degree are least likely to consume greater than 30% of their calories from fat (67%).

**Figure 3**

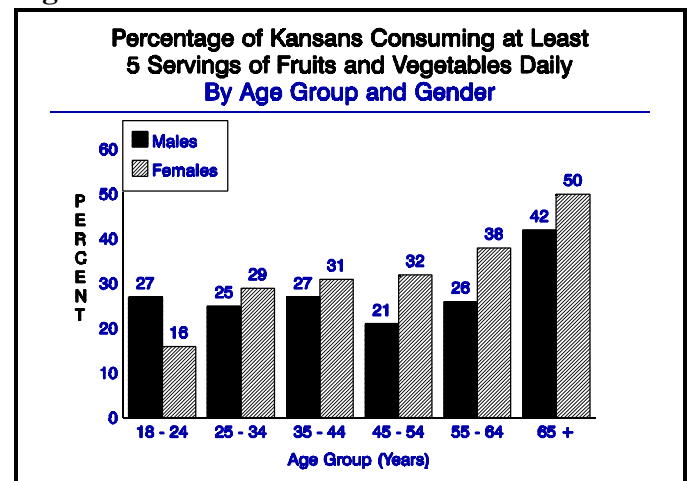


Income (Fig. 3): The percentage of Kansans obtaining more than 30% of their total calories from fat increases with increasing household income except for those Kansans in the highest household income category. Kansans with household incomes below \$10,000 or greater than \$50,000 are least likely to consume greater than 30% of their calories from fat (66%). Kansans with household incomes between \$40,000 and \$50,000 have the highest prevalence of persons consuming more than 30% of their calories from fat (76%).

## Fruit and Vegetable Consumption

Overall: According to the 1993 BRFSS survey, 31% of Kansans eat at least 5 servings of fruits and vegetables daily.

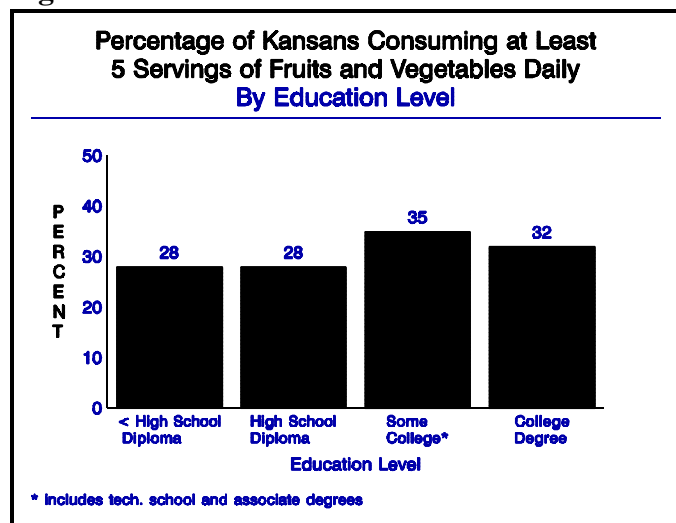
**Figure 4**



Age Group and Gender (Fig. 4): Women are

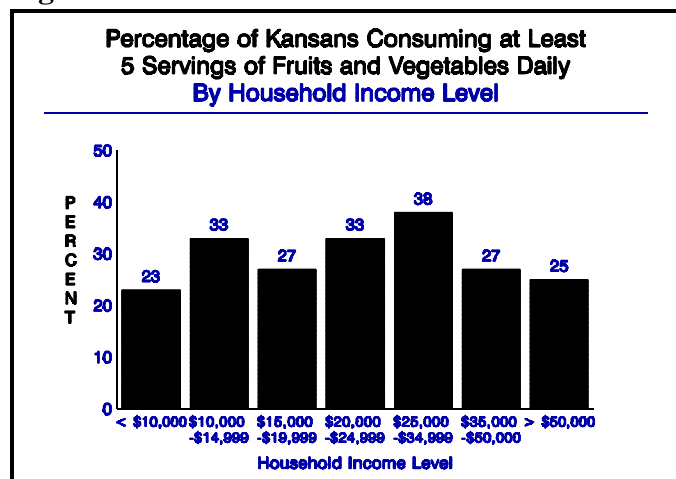
slightly more likely to eat 5 or more servings of fruits and vegetables daily (34%) than are men (28%). The percentage of Kansans who eat at least 5 servings of fruits and vegetables daily increases with advancing age. Only 22% of Kansans aged 18 to 24 consume 5 or more servings of fruits and vegetables a day; however, the prevalence of eating 5 or more servings of fruits and vegetables daily increases to 47% among Kansans aged 65 and older.

Figure 5



Education (Fig. 5): Kansans with a high school education or less are slightly less likely to eat 5 or more servings of fruits and vegetables daily (28%) than are Kansans with some college (35%) or college degrees (32%).

Figure 6



Income (Fig. 6): Kansans in the middle income

categories (\$10,000 to \$34,999) have higher percentages of persons consuming 5 or more servings of fruits and vegetables than Kansans in the lowest and highest income categories.

**Conclusions:** Dietary habits are poor for all demographic groups in Kansas; however, Kansans aged 65 and older do better as a group than other Kansans. Fewer older Kansans consume 30% or more of their total calories from fat and more older Kansans eat 5 or more servings of fruits and vegetables each day.

**Recommendations:** The following recommendations are offered to improve the dietary practices of Kansans:

1. Include nutrition education as part of every child's health curriculum in elementary, middle, and high schools.
2. Decrease the percent of calories from fat served in school lunches and child care programs.
3. Educate communities about the availability and value of dietetic services and education for the treatment of hypertension, diabetes, elevated cholesterol, and obesity.
4. Target low income and minority populations with culturally sensitive programs that attempt to change long-term dietary habits, especially among children and family food preparers.
5. Improve the availability of low-fat choices in restaurants and grocery stores.
6. Develop community programs that teach low-fat cooking.

**Healthy Kansans 2000 Objectives (Table 1):** The Healthy Kansans 2000 objectives relating to nutrition are to:

1. Increase to 40% the proportion of Kansans whose dietary fat intake constitutes less than 30% of their caloric intake.
2. Decrease to 20% the proportion of persons whose dietary fat intake constitutes 40% or more of their caloric intake.
3. Increase to 35% the proportion of adult Kansans who consume at least 2 servings of

fruit each day.

4. Increase to 35% the proportion of adult Kansans who consume at least 3 servings of vegetables each day.
5. Increase to 70% the proportion of adult Kansans who consume at least 600 mg. of calcium per day.

#### References:

- 1 *Healthy People 2000, National Health Promotion and Disease Prevention Objectives*. Washington, D.C.:Dept. of Health and Human Services, Sept. 1990. DHHS publication 91-50212.
- 2 Public Health Service. *The Surgeon General's Report on Nutrition and Health*. DHHS (PHS) Pub. No. 88-50210. Washington, D.C.: U.S. Dept. of Health and Human Services, 1988.
- 3 U.S. Dept. of Agriculture and U.S. Dept. of Health and Human Services. *Dietary Guidelines for Americans*. Washington, D.C.: the Departments, 1990.

Table 1: Nutrition Objectives

	Kansas Baseline	Healthy Kansans 2000 Objective
% of Kansans eating 30% or less of calories as fat	30% (1993)	40%
% of Kansans eating 40% or more of calories as fat	31% (1993)	20%
% of Kansans eating at least 2 fruit servings/day	21% (1993)	35%
% of Kansans eating at least 3 Veg. servings/day	21% (1993)	35%
% of Kansans consuming at least 600mg calcium/day	54% (1993)	70%

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